

### REMARKS

This response is believed to place the application in condition for allowance. Applicant's thanks the examiner for describing what the examiner believes were deficiencies in the previously submitted declaration supporting removal of the applied reference because it is the inventors' own work. The additional statements and information provided in the declarations submitted herewith are believed to meet the requirements of the examiner and therefore reconsideration and allowance are respectfully requested.

As a preliminary explanation to avoid confusion, applicants' undersigned attorney would call to the examiner's attention that the correct last name of one of the co-inventors is **McConnell** not **Connell**. The International Application and other papers submitted on behalf of the applicants showed the name correctly but it appears that it was erroneously converted to **Connell** by USPTO data entry personnel and, as a result, adopted by the examiner. A request for correction is being submitted.

### Summary Of The Past Prosecution Of This Application

In the first office action, the examiner rejected the claims on three references. In response, the applicant amended the claims and pointed out why the invention was patentable over the cited prior art. In the second office action, the examiner found applicant's remarks persuasive and withdrew the initial rejection. The examiner then issued a new rejection based upon Olson et al. (US 6,731,978 B2) in view of R. Dzwonczyk et al. "Myocardial Electrical Impedance Responds to Ischemia and Reperfusion in Humans", *Computers in Cardiology* 2002;29:541-543. That paper includes as a coauthor one of the co-inventors of this application and is referred to in the declaration that accompanies this response as paper A. In applicant's

response to the second office action, applicant submitted a declaration showing that paper A was the inventors' own work and therefore should be withdrawn as a reference. In response the examiner issued a final office action in which the examiner repeated the previous rejection and declined to accept applicants' declaration.

In the final office action, the examiner pointed out that the declaration does not make reference to the "claimed" invention, referring instead only to the "disclosed invention". The required language has been included in the declarations filed herewith.

The examiner also said that the article by R. Dzwonczyk et al is prior art until the applicant clarifies what Patrick McConnell contributed to the disclosed and claimed invention. The examiner said that "the present application and the cited reference consist of two different inventive entities".

Finally, the examiner also said that a similar situation applies to the previously cited but not applied publication CL delRio et al. "Use of Myocardial Electrical Impedance to Assess the Efficacy of Preconditioning", *Computers in Cardiology* 2002;29:489-492. This publication is referred to as paper B herein and in the declarations filed herewith.

#### Applicants' Response to the Final Office Action

Applicants submit herewith two declarations. One is the declaration of Roger Dzwonczyk, a co-inventor and coauthor. The other is the declaration of Patrick McConnell, a co-inventor. The Dzwonczyk declaration submitted herewith is a substantially supplemented version of the previously submitted Dzwonczyk declaration. The McConnell declaration attests to substantially the same facts as the Dzwonczyk declaration. The declarations address the

contribution of Patrick McConnell to the invention to the extent practical and also address both paper A and paper B.

Both paper A and paper B were published at the same time as a part of the same proceedings. Neither paper is prior art against this application. The applicable sections of the M.P.E.P are MPEP 715.01(c), the first paragraph and the subsequent section I, and MPEP 716.10. First, the declarations show the publication date of the reference so that it can be seen that the reference is not a statutory bar because it was published less than one year before applicants' priority filing date. Second, the affidavit shows, as required by section I of MPEP 715.01(c), that the reference article is describing applicants' own work and that those authors of the article who are not inventors, were working under the direction of the inventors. The declaration is filed under 37 CFR 1.132 in accordance with MPEP 715.01(c), section I.

The facts are stated in the declarations and therefore are not repeated here. However, applicants would like to address and hopefully clarify applicants' understanding related to one comment by the examiner. Applicants' undersigned attorney believes that the examiner's understanding is identical to that of applicants' attorney, but to be certain, would like to expressly state his understanding. The examiner said that "the present application and the cited reference consist of two different inventive entities". It is important to distinguish "inventive entity" from what might similarly be called "authorship entity". The criteria for who is an inventor or co-inventor and the criteria for who is a co-author are entirely different. The concept of "inventive entity" is believed to only be relevant to a patent application, not to a published article. The MPEP permits the appearance, in a published article, of coauthors who are not co-inventors because the criteria for authorship and the criteria for inventorship are entirely different.

The criteria for inventorship are discussed at MPEP 2137.01 Inventorship. The important matters discussed there are:

- I. Executors Of Oath Or Declaration Under 37 Cfr 1.63 Are Presumed To Be The Inventors;
- II. An Inventor Must Contribute To The Conception Of The Invention;
- IV. The Inventor Is Not Required To Reduce The Invention To Practice
- V. Requirements For Joint Inventorship includes the relevant statements:

“The inventive entity for a particular application is based on some contribution to at least one of the claims made by each of the named inventors. "Inventors may apply for a patent jointly even though (1) they did not physically work together or at the same time, (2) each did not make the same type or amount of contribution, or (3) each did not make a contribution to the subject matter of every claim of the patent."

and

"What is required is some "quantum of collaboration or connection." In other words, "[f]or persons to be joint inventors under Section 116, there must be some element of joint behavior, such as collaboration or working under common direction, one inventor seeing a relevant report and building upon it or hearing another's suggestion at a meeting."

As stated in the declarations, the co-inventors, including Patrick McConnell, collaborated in personal conferences.

The criteria for coauthorship is described in the declarations. The policies governing authorship of a publication have been established by the editors and publishers of the scientific journals. Authorship on scientific papers is customarily determined in the scientific community by including as authors all workers who have made significant contributions to the design, conduct, analysis and/or the data interpretation of a scientific experiment. Papers are ordinarily about experimental activities, the experimentally derived data and conclusions and theories to be drawn from the data. A co-inventor may not, and is not required to, participate in an

experiment that involves the invention. According to the authorship policy, a co-inventor should not be included as a co-author if the co-inventor did not participate in the experiment. Similarly, an individual can participate in an experiment and therefore be a co-author but not contribute to the invention disclosed and claimed in a patent application. So inventorship and authorship are very different. Inventorship is about conception of ideas. Authorship is about experiments conducted and related to the invention.

Therefore, applicants respectfully submit that the two papers A and B, on which three of the four co-inventors are coauthors, should be withdrawn as references because they are the inventors' own work.

Additionally, claim 1 is believed to be an allowable linking claim. Therefore, applicants' request rejoinder of the remaining, non-elected claims, all of which depend from claim 1.

The Commissioner is authorized to charge Deposit Account No. 13-3393 for any insufficient fees under 37 CFR §§ 1.16 or 1.17, or credit any overpayment of fees.

Respectfully submitted,



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Date of Signature

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